

***FlyBy Math™* Alignment  
Mathematics Grade-Level Expectations**

**Number and Number Relations**

**Grade-Level Expectations**

10. Determine and apply rates and ratios (N-8-M)

***FlyBy Math™* Activities**

--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.

**Algebra**

**Grade-Level Expectations**

18. Describe linear, multiplicative, or changing growth relationships (e.g., 1, 3, 6, 10, 15, 21, ...) verbally and algebraically (A-3-M) (A-4-M) (P-1-M)

***FlyBy Math™* Activities**

--Represent distance, speed, and time relationships for constant speed cases using linear equations and a Cartesian coordinate system.

--Use calculations and experimental evidence to predict, describe, and explain several aircraft conflict problems.

**Geometry**

**Grade-Level Expectations**

29. Plot points on a coordinate grid in all 4 quadrants and locate the coordinates of a missing vertex in a parallelogram (G-6-M) (A-5-M)

***FlyBy Math™* Activities**

--Plot points on a schematic of a jet route, on a vertical line graph, and on a Cartesian coordinate system to describe the motion of two airplanes.

**Data Analysis, Probability, and Discrete Math**

**Grade-Level Expectations**

33. Analyze discrete and continuous data in real-life applications (D-2-M) (D-6-M)

***FlyBy Math™* Activities**

--Use tables, bar graphs, line graphs, a Cartesian coordinate system, and equations to model aircraft conflicts and predict outcomes.

**Patterns, Relations, and Functions**

**Grade-Level Expectations**

40. Analyze and verbally describe real-life additive and multiplicative patterns involving fractions and integers (P-1-M) (P-4-M)

***FlyBy Math™* Activities**

--Represent distance, speed, and time relationships for constant speed cases using tables, bar graphs, line graphs, equations, and a Cartesian coordinate system.